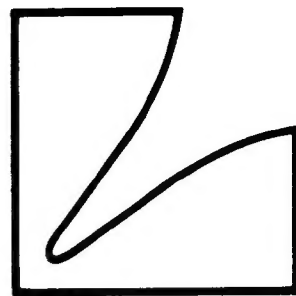


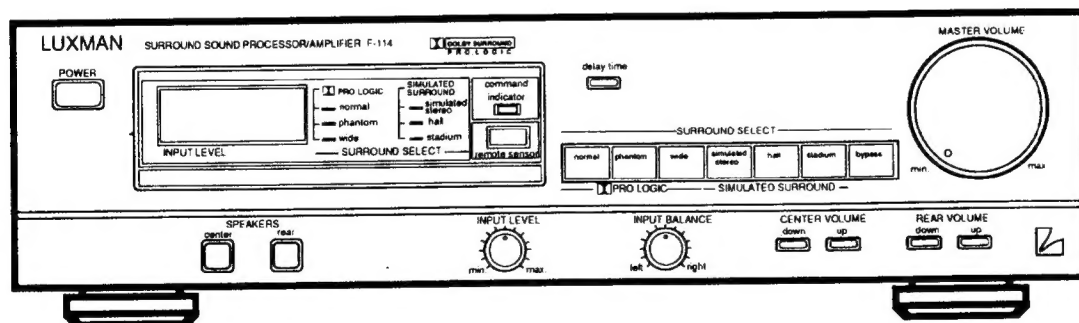
SERVICE MANUAL



Surround Sound Processor/Amplifier

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Disassembly Instructions
Adjustment Procedures
Adjustment Locations
Block Diagram



Disassembly Instructions

1. Caution on Removing the Front Base

You cannot remove the Front Base unless you remove the Front Panel first. When you remove the Front Panel, follow the procedure given below.

- (1) Remove the four screws that fix the lower Part of the Front Panel. To remove the Front Panel, push the panel in the direction of arrow C as you press down Hooks (A) (located in three places) in the direction of arrow B using a minus (-) screwdriver (see Figures 1 and 2).

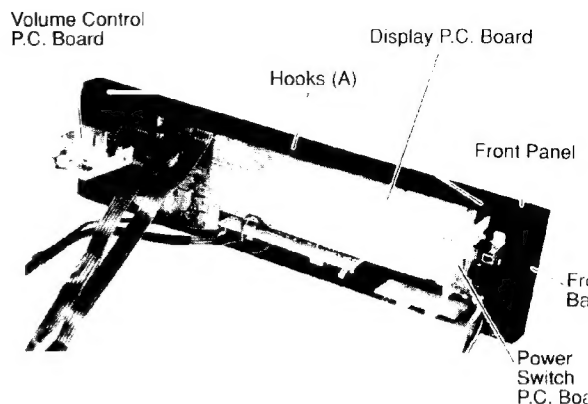


Figure 1

2. Caution on Removing the Display P.C.Board

Remove the four screws fixing the Board. Remove the Display P.C.Board as you press Hooks (D) (located in six places) in the direction of arrow E using your fingers (see Figures 3 and 4).

Note: Be careful when you handle Hooks (A) and (D). They may break easily.

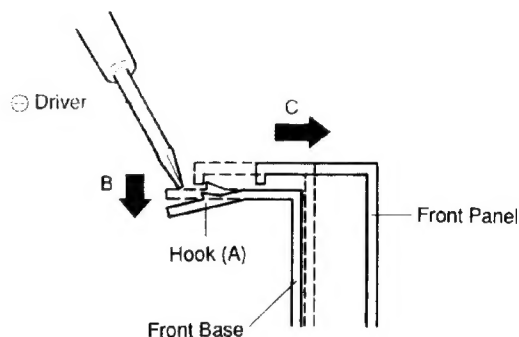


Figure 2

3. Caution on Removing the Volume Control P.C.Board

To prevent cutting off the Connector (F) which comes out from the Volume Indicator P.C.Board at the rear of the Volume Control Knob, disconnect the connector before removing the knob (see Figure 5).

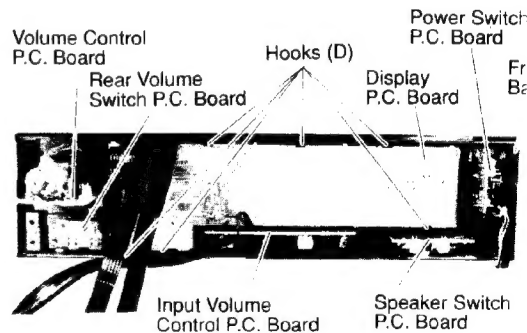


Figure 3

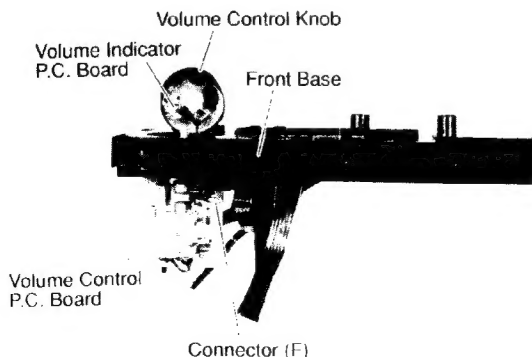


Figure 5

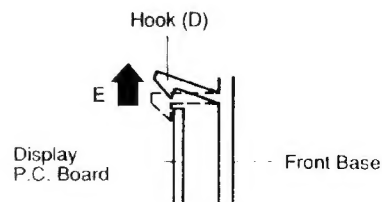


Figure 4

Adjustment Procedures

1. Idling Adjustment

(1) Connection

Step	A	B
1	TP601	TP603
2	TP604	TP602
3	TP701	TP702

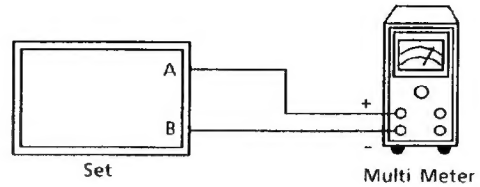


Figure 6

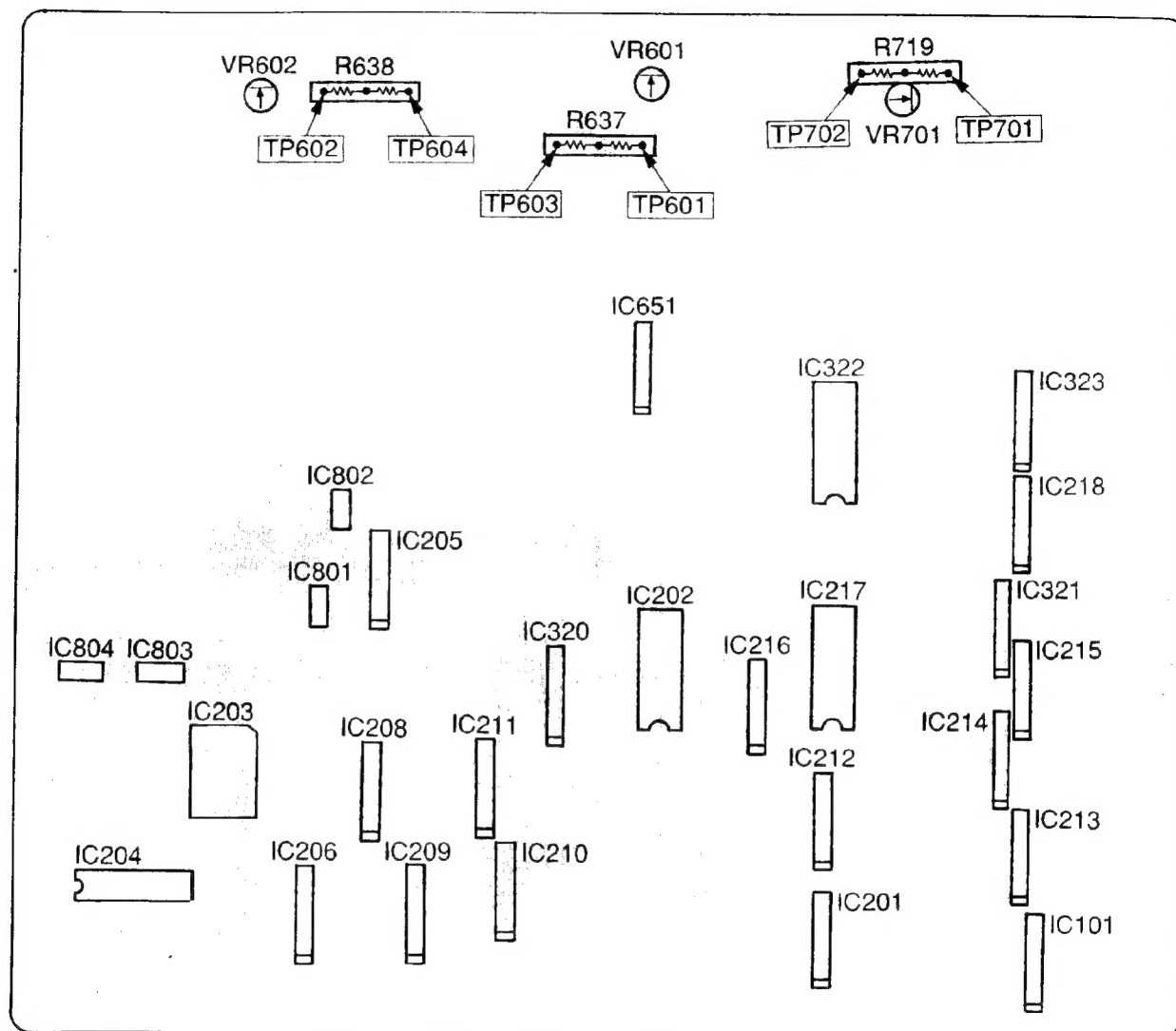
(2) Control Settings

Volume Control Minimum
 Power Switch ON
 Others OFF

(3) Adjustment Procedures

Step	Description	Connection	Adjust Points	Test Point	Remarks
1	Idling Adjustment	Figure 6	VR601 (REAR - L)	TP601, 603 (REAR - L)	Power switch on and wait 5 minutes for warming-up Adjust to 5~7mV.
2			VR602 (REAR - R)	TP602, 604 (REAR - R)	
3			VR701 (CENTER)	TP701, 702 (CENTER)	

Adjustment Locations

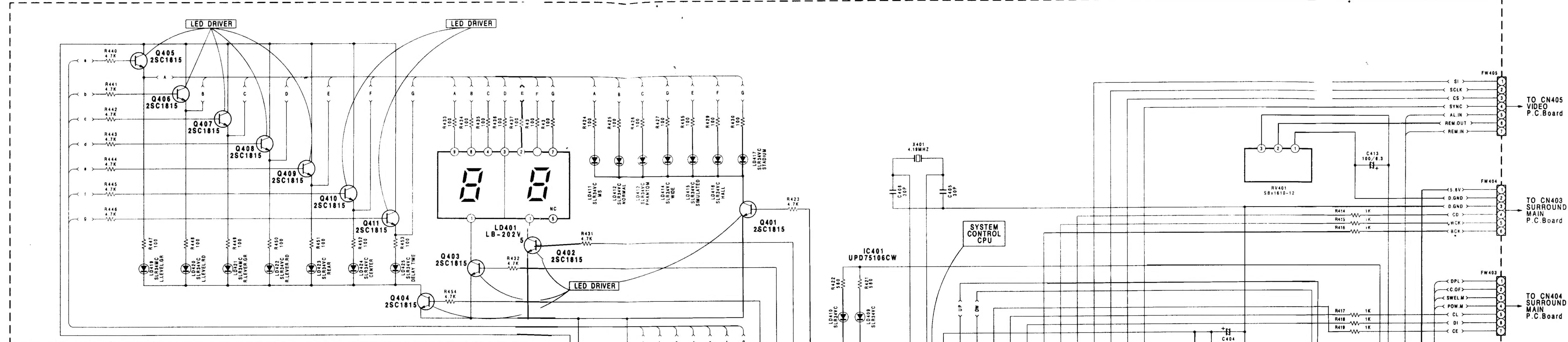


SURROUND MAIN P.C. Board (Top View)

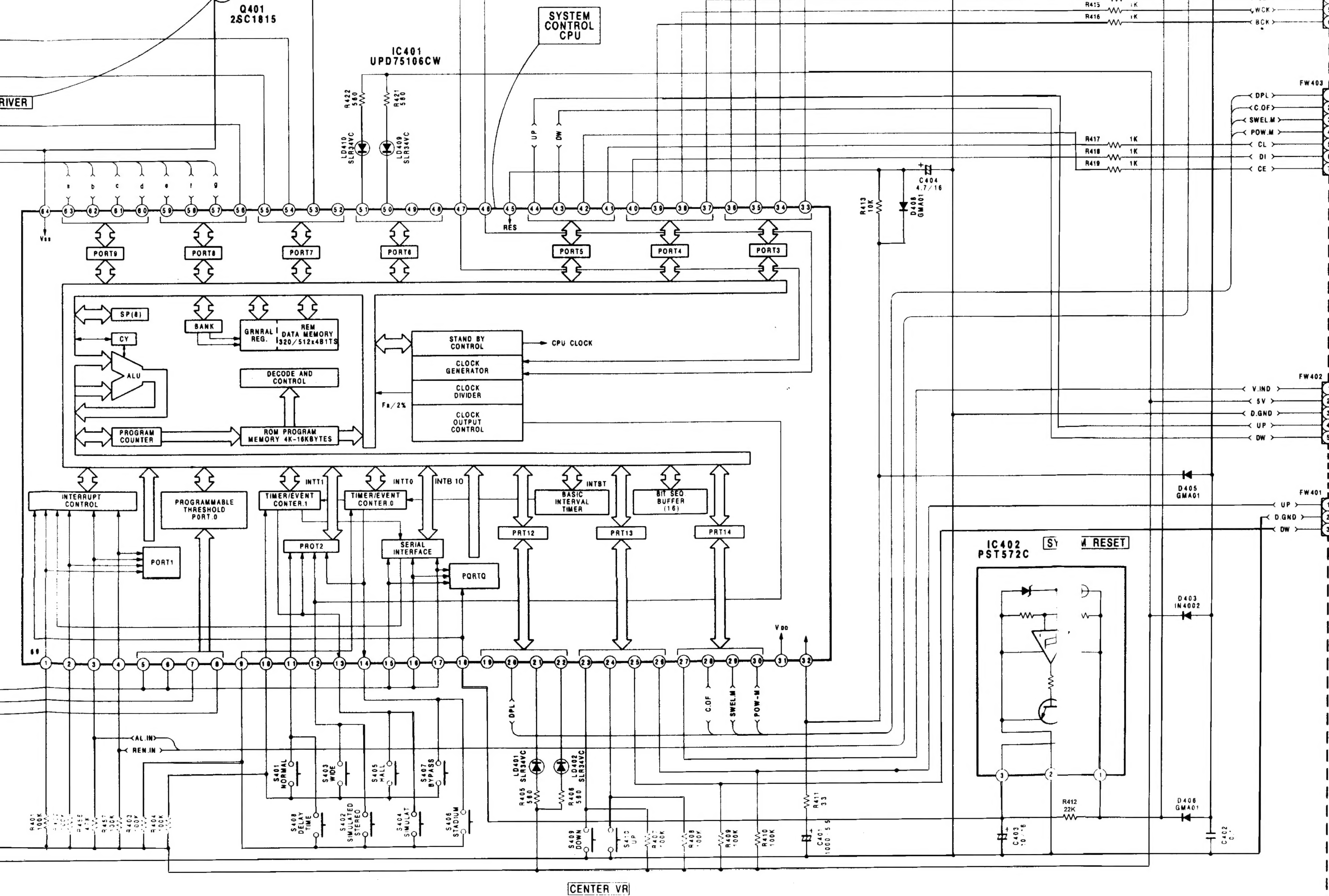
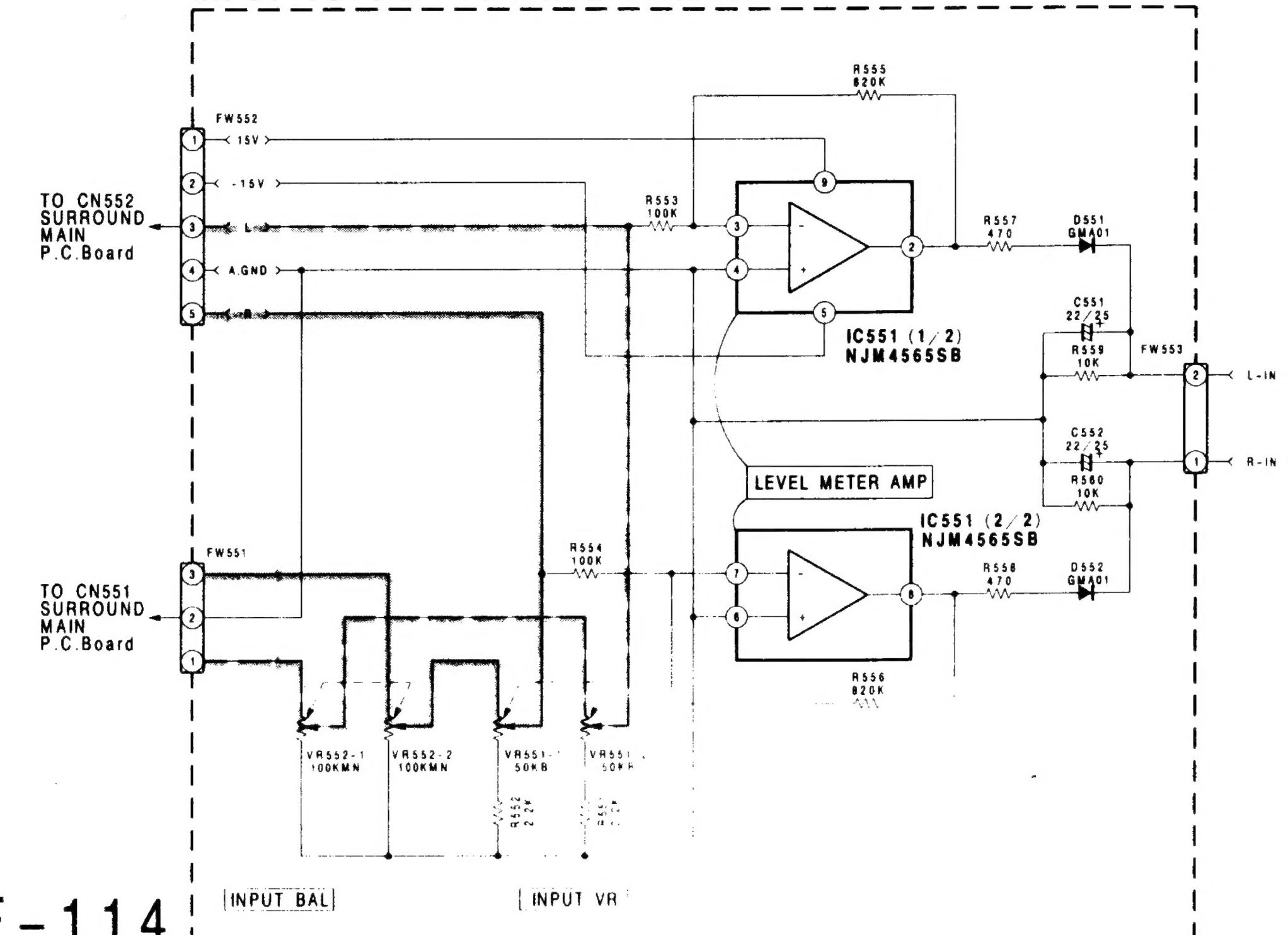
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IC'S	IC551 (1/2) IC551 (2/2)								
TRANSISTORS (Q)	Q405	Q406	Q407	Q408	Q409	Q410	Q411	Q404	Q403

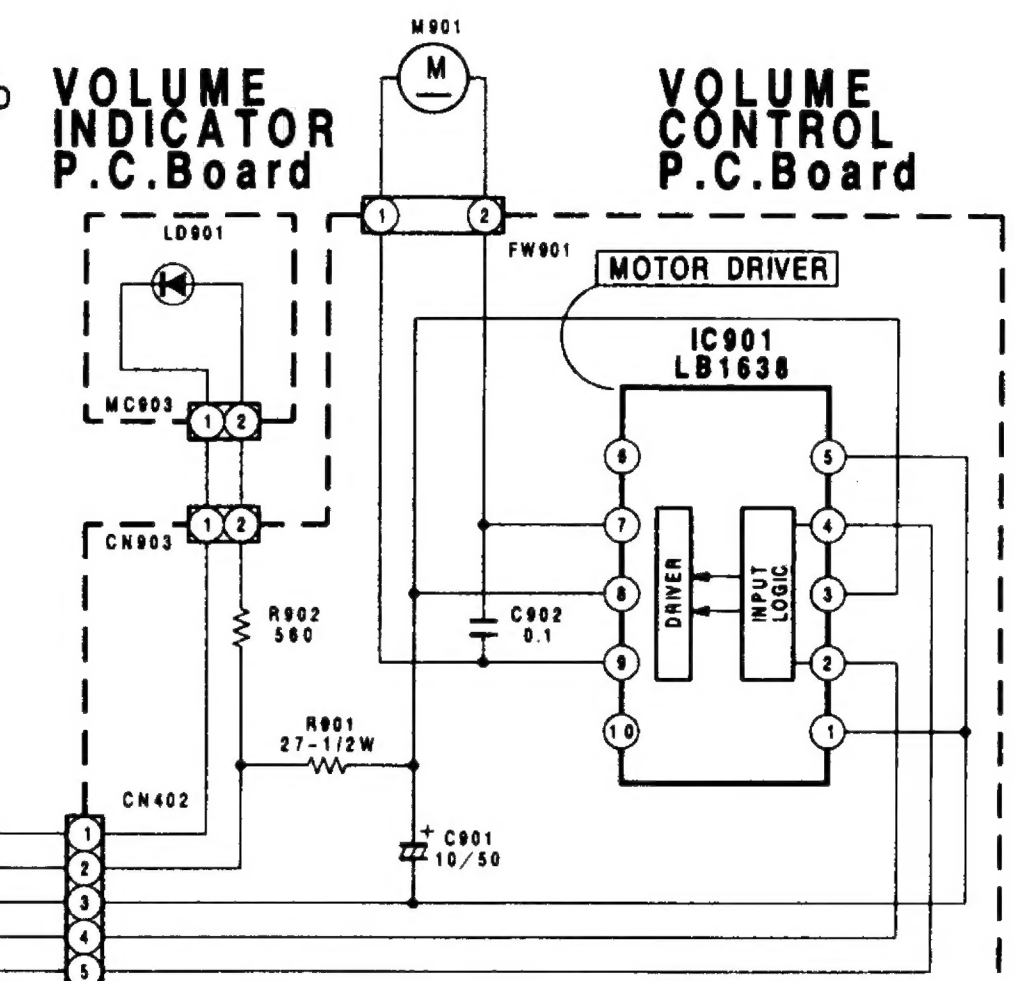
DISPLAY P.C.Board



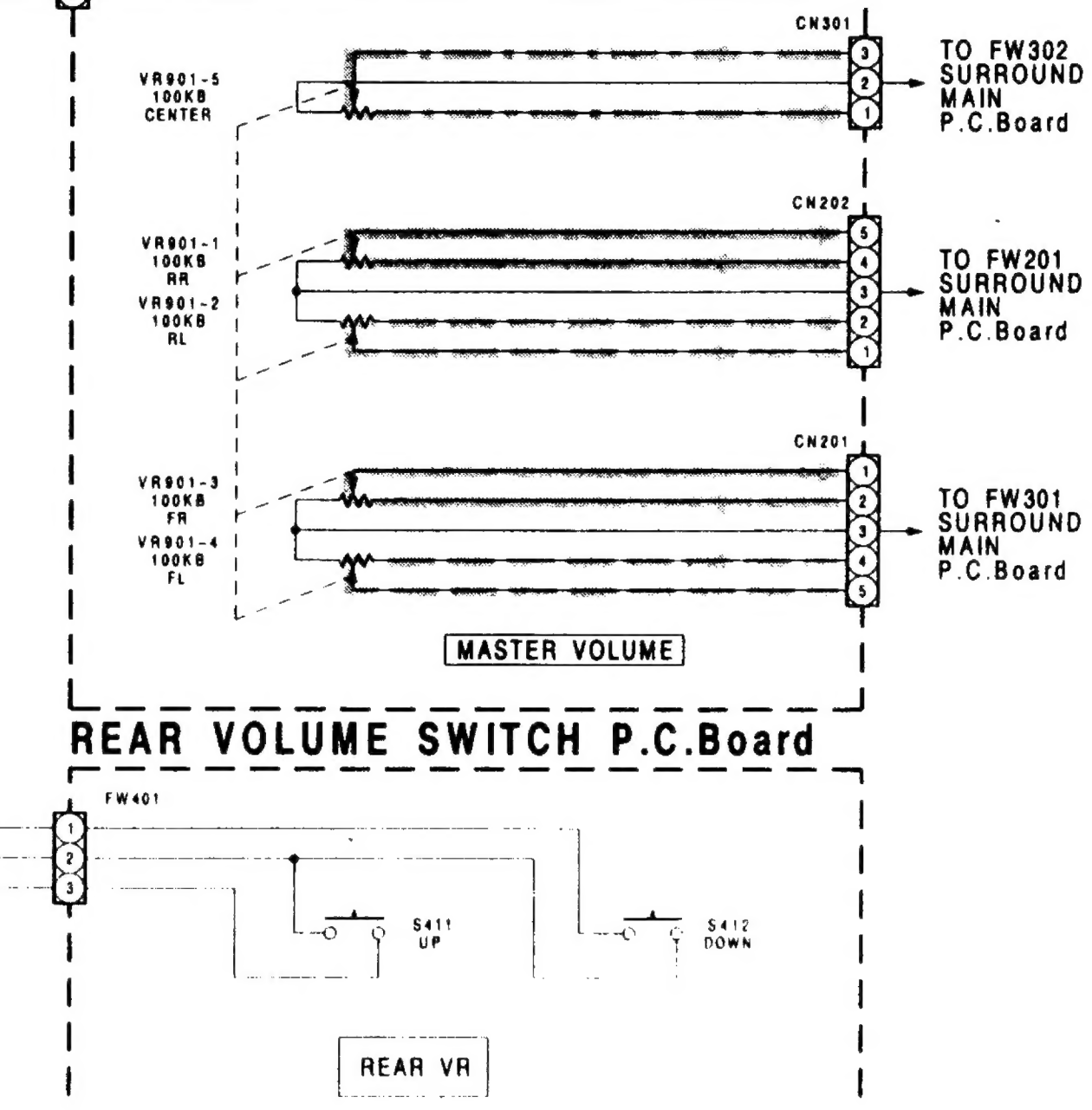
INPUT VOLUME CONTROL P.C.Board



**VOLUME
INDICATOR
P.C.Board**



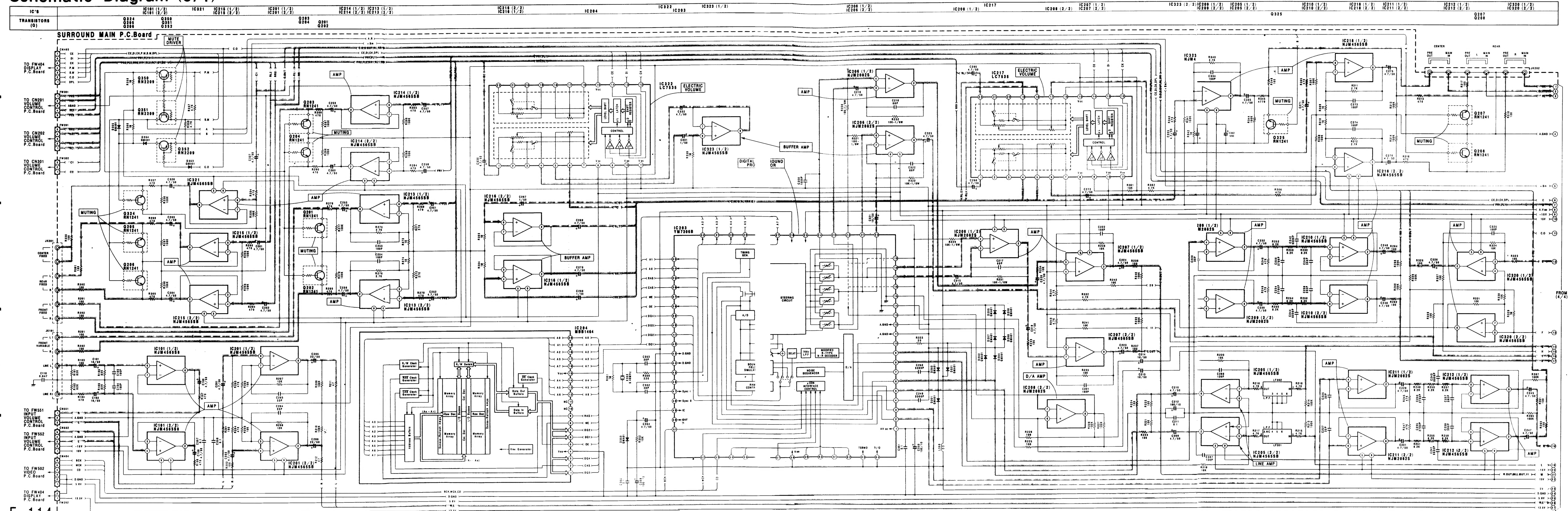
**VOLUME
CONTROL
P.C.Board**



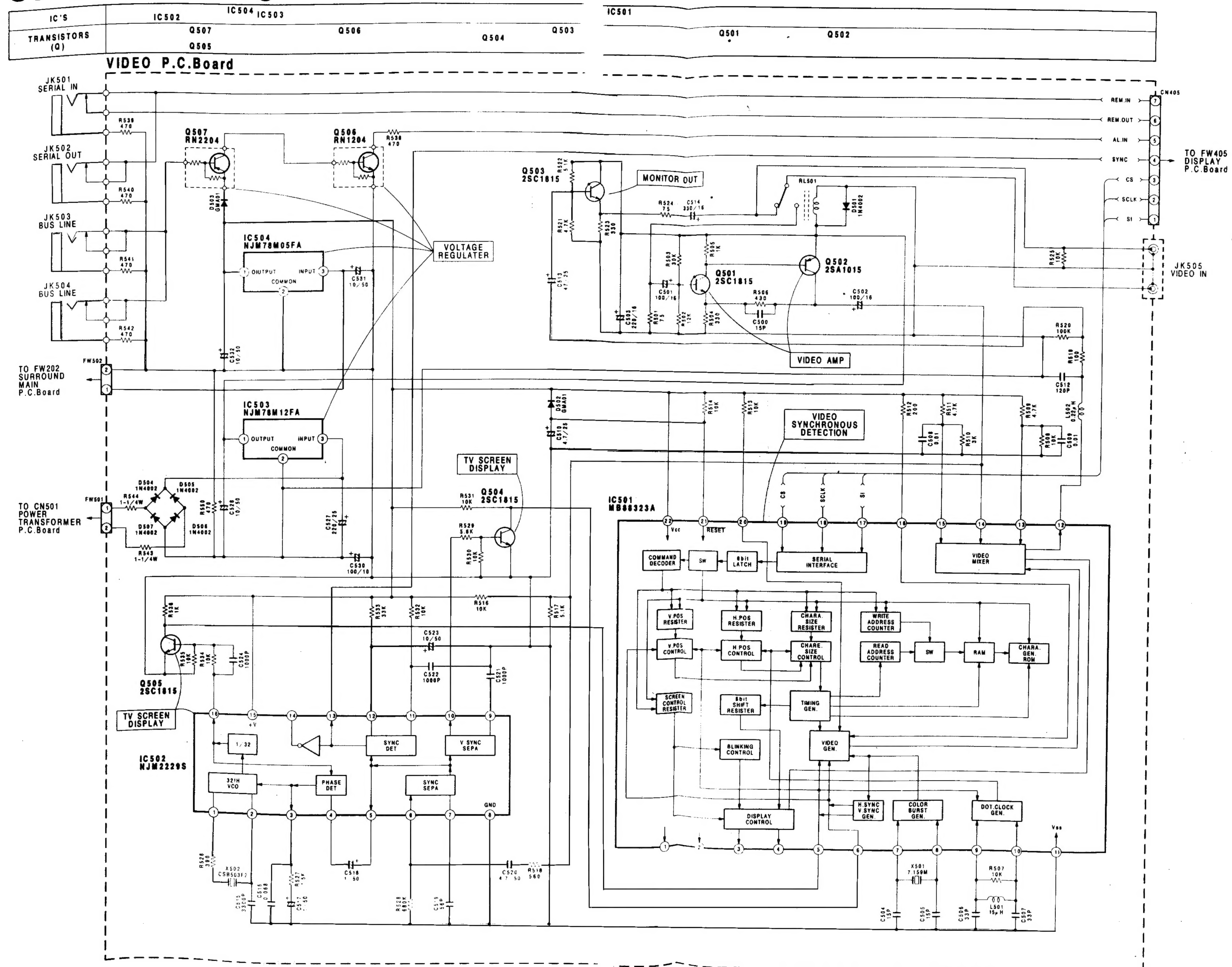
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Schematic Diagram (3/4)



Schematic Diagram (1/4)



	E	C	B
Q201	0V	0V	-13V
Q202	0V	0V	-13V
Q203	0V	0V	-13V
Q204	0V	0V	-13V
Q205	0V	0V	-13V
Q206	0V	0V	-13V
Q207	0V	0V	-13V
Q208	0V	0V	-13V
Q321	0V	0V	0.7V
Q322	0V	0V	0.7V
Q323	15V	15V	0V
Q324	0V	0V	-13V
Q325	0V	0V	-13V
Q350	0.1V	-13V	0V
Q351	0.1V	-13V	0V
Q352	13V	-13V	13V
Q401	0V	2.5V	0.2V
Q402	0V	2.5V	0.2V
Q403	0V	2.5V	0.2V
Q404	0V	2.5V	0.2V
Q405	3.5V	5V	3.8V
Q406	2V	5V	1.7V
Q407	PULSE	5V	1V
Q408	3.4V	5V	3.7V
Q409	2V	5V	1.7V
Q410	PULSE	5V	1V
Q411	2.2V	5V	1.7V
Q501	2.8V	11V	3.4V
Q502	12V	6V	11V
Q503	5V	12V	5.7V
Q504	0V	0V	0.7V
Q505	0V	4.6V	0V
Q506	0V	5V	0V
Q507	4.8V	0V	4.8V
Q601	0.6V	-43V	0.1V
Q602	0.6V	-43V	0.1V
Q603	0.6V	-43V	0V
Q604	0.6V	-43V	0V
Q605	-44V	-43V	-43V
Q606	-44V	-43V	-43V
Q607	43V	1V	42V
Q608	43V	1V	42V
Q609	-43V	-1V	-42V
Q610	-43V	-1V	-42V
Q611	-1V	1V	-0.5V
Q612	-1V	1V	-0.5V
Q613	0.5V	44.5V	1.1V
Q614	0.5V	44.5V	1.1V
Q615	-0.5V	-44.5V	-1.1V
Q616	-0.5V	-44.5V	-1.1V
Q617	0V	44.5V	0.5V
Q618	0V	44.5V	0.5V
Q619	0V	-44.5V	-0.5V
Q620	0V	-44.5V	-0.5V
Q651	0V	43V	0V
Q652	0V	43V	0V
Q653	44.5V	0.7V	44.5V
Q654	0V	43V	0.1V
Q655	0V	0.15V	0.7V
Q656	0V	0.15V	0.7V
Q701	0.6V	-43V	0.1V
Q702	0.6V	-43V	0V
Q703	-44V	-43V	-43V
Q704	43V	1V	42V
Q705	-43V	-1V	-42V
Q706	-1V	1V	-0.5V
Q707	0.5V	44.5V	1.1V
Q708	-0.5V	-44.5V	-1.1V
Q709	0V	44.5V	0.5V
Q710	0V	44.5V	-0.5V
Q751	0V	43V	0V

	IC101	IC201	IC205	IC206	IC207	IC208	IC209	IC210	IC211	IC212	IC213	IC214	IC215	IC216	IC218
1															
2	0V	0V	0V	2.5V	0V	2.5V	NC	0V	2.5V	0V	0V	0V	0V	0V	0V
3	0V	0V	0V	2.5V	0V	2.5V	NC	0V	2.5V	0V	0V	0V	0V	0V	0V
4	0V	0V	0V	2.5V	0V	2.5V	NC	0V	2.5V	0V	0V	0V	0V	0V	0V
5	-15V	-15V	-15V	-15V	-15V	-15V	-15V	-15V	-15V	-15V	-15V	-15V	-15V	-15V	-15V
6	0V	0V	0V	2.5V	0V	2.5V	2.5V	0V	2.5V	0V	0V	0V	0V	0V	0V
7	0V	0V	0V	2.5V	0V	2.5V	2.5V	0V	2.5V	0V	0V	0V	0V	0V	0V
8	0V	0V	0V	2.5V	0V	2.5V	2.5V	0V	2.5V	0V	0V	0V	0V	0V	0V
9	15V	15V	15V	15V	15V	15V	15V	15V	15V	15V	15V	15V	15V	15V	15V

IC202			
1	0V		
2	0V		
3	0V		
4	0V		
5	0V		
6	0V		
7	0V		
8	0V		
9	0V		
10	0V		
11	0V		
12	-15V		
13	0V		
14	0V		
15	0V		
16	0V		
17	0V		
18	15V		
19	15V		
20	0V		
21	0V		
22	0V		
23	0V		
24	0V		
25	0V		
26	0V		
27	0V		
28	0V		
29	0V		
30	0V		

IC203			
1	5V	33	PULSE
2	2.5V	34	PULSE
3	2.5V	35	PULSE
4	2.5V	36	PULSE
5	2.5V	37	PULSE
6	2.5V	38	PULSE
7	2.5V	39	PULSE
8	2.5V	40	PULSE
9	2.5V	41	PULSE
10	2.5V	42	PULSE
11	0V	43	0V
12	0V	44	0V
13	2.5V	45	2.1V
14	2.5V	46	2V
15	2.5V	47	5V
16	2.5V	48	NC
17	2.5V	49	5V
18	2.5V	50	NC
19	2.5V	51	5V
20	2.5V	52	0V
21	2.5V	53	0V
22	2.5V	54	NC
23	2.5V	55	NC
24	2.5V	56	NC
25	5V	57	NC
26	5V	58	5V
27	PULSE	59	NC
28	PULSE	60	NC
29	PULSE	61	NC
30	PULSE	62	NC
31	PULSE	63	5V
32	PULSE	64	5V

IC204			
1	PULSE		
2	PULSE		
3	PULSE		
4	0V		
5	PULSE		
6	PULSE		
7	PULSE		
8	PULSE		
9	PULSE		
10	NC		
11	NC		
12	PULSE		
13	PULSE		
14	PULSE		
15	5V		
16	PULSE		
17	PULSE		
18	PULSE		
19	PULSE		
20	PULSE		

IC217			
1	0V	0V	
2	NC	NC	
3	NC	NC	
4	0V	0V	
5	0V	0V	
6	0V	0V	
7	0V	NC	
8	-15V	-15V	
9	5V	5V	
10	15V	15V	
11	0V	0V	
12	0V	0V	
13	0V	0V	
14	0V	0V	
15	5V	5V	
16	0V	0V	
17	0V	NC	
18	0V	NC	
19	0V	NC	
20	NC	NC	
21	NC	NC	
22	0V	NC	

IC401			
1	4.9V	33	0V
2	4.9V	34	4.9V
3	4.9V	35	4.9V
4	4.9V	36	0V
5	4.9V	37	0V
6	4.9V	38	0V
7	0V	39	4.9V
8	0V	40	0V
9	4.8V	41	0V
10	4.8V	42	0V
11	4V	43	0V
12	4V	44	0V
13	4V	45	4.8V
14	3V	46	2.6V
15	5V	47	2.6V
16	5V	48	NC
17	5V	49	NC
18	5V	50	4.9V
19	NC	51	4.9V
20	0V	52	NC
21	3.6V	53	0V
22	3.6V	54	0V
23	4.8V	55	0V
24	4.8V	56	0V
25	4.8V	57	5V
26	4.8V	58	0V
27	0.2V	59	0V
28	13V	60	0V
29	0.1V	61	0V
30	0.1V	62	0V
31	NC	63	0V
32	5V	64	0V

IC501			
1	NC	2.7V	
2	NC	2.2V	
3	NC	1.8V	
4	NC	0V	
5	4.8V	4.3V	
6	0V	2.7V	
7	2.5V	2V	
8	2.5V	0V	
9	2.3V	4.9V	
10	2.7V	4.2V	
11	0V	0.4V	
12	1.7V	5V	
13	3.4V	0V	
14	1.7V	NC	
15	2V	5V	
16	3.9V	0.7V	
17	0.1V		
18	4.9V		
19	4.9V		
20	5V		
21	5V		
22	5V		

IC320			
1			
2	0V	0V	0V
3	0V	0V	0V
4	0V	0V	0V
5	-15V	-15V	-15V
6	0V	0V	0V
7	0V	0V	0V
8	0V	0V	0V
9	15V	15V	15V

IC402			
1	5V	12V	5V
2	0V	0V	0V
3	5V	17V	13V

IC503			
1	5V	12V	5V
2	0V	0V	0V
3	5V	17V	13V

IC801			
1	5V	12V	5V
2	0V	0V	0V
3	5V	17V	13V

IC802			
1	5V	12V	5V
2	0V	0V	0V
3	5V	17V	13V

IC803			
1	5V	12V	5V
2	0V	0V	0V
3	5V	17V	13V

IC804			
1	5V	12V	5V
2	0V	0V	0V
3	5V	17V	13V